

# COMPUTING LONG TERM PLAN CYCLE B

	<b>YEARS 1 &amp; 2</b>	
<b>AUTUMN</b>	<p><b>Y2 Everyone Can Create: Drawing People and Places</b></p> <p>How to use digital tools to draw using scale and perspective, showing emotion and movement. How to save and organise documents. Link their artwork to the topic they are studying where possible, to be used as illustrations in other pieces of digital learning.</p>	<p>Y2 Everyone Can Code Early Learners: Variables and App Design</p> <ul style="list-style-type: none"> <li>• Variable: A named container that stores a value and can be changed</li> <li>• Data: Information</li> <li>• Boolean: A type that has a value of either true or false</li> </ul>
	<b>YEARS 3 &amp; 4</b>	
	<p><b>Y4 Everyone Can Create: Storyboards + Movie Pitch</b></p> <ul style="list-style-type: none"> <li>• A storyboard is a graphic organiser that consists of drawings or images displayed in sequence for the purpose of previsualising a movie or animation.</li> <li>• How to create a trailer using the iMovie app.</li> <li>• How to draw a storyboard using the Keynote app.</li> </ul>	<p><b>Y4 Scratch: Using Variables in a Game</b></p> <ul style="list-style-type: none"> <li>• recognise that the value of a variable can be changed</li> <li>• why a variable is used in a program</li> <li>• that variables can hold numbers or letters</li> <li>• how to improve a game by using variables</li> <li>• how to use a design to create a project</li> <li>• how to use variables to extend a game</li> <li>• how to share a game with others</li> </ul>
	<b>YEARS 5 &amp; 6</b>	
<p><b>Y6 Everyone Can Create: Special Effects in iMovie</b></p> <ul style="list-style-type: none"> <li>• A stop trick is a special effect to create an illusion of something appearing or disappearing.</li> <li>• Green-screen effects enable a film maker to place a person or object into another place or scene, often when the scene is not real.</li> </ul>	<p><b>Y6 Everyone Can Code: Functions with Parameters and Logical Operators</b></p> <ul style="list-style-type: none"> <li>• An argument is an input that is passed into a function to customise its behaviour.</li> <li>• An argument label is the description of the argument value followed by a colon in the parameter</li> <li>• A parameter is the placeholder for extra information that gets passed to a function</li> </ul>	

# CYCLE B

## YEARS 1 & 2

### Y2 Online Safety: Smartie the Penguin

- to ask for help from an adult if they see a pop-up image
- to ask for help from an adult if they see an advert with in-app purchasing
- to ask for help from an adult if they feel bullied online.

### Y2 Scratch: Musical Actions and Sequences

- design in programming, moving between the design and code levels of the project
- the concept of coding multiple sprites in one project
- each of the blocks cause an event to start a script linked to a particular sprite
- sequences can combine motion and sounds.
- how to use costumes to change the appearance of a sprite and backdrops to change the appearance of the stage.

## YEARS 3 & 4

### Y4 Be Internet Legends: Making Good Decisions Online, Being Brave Online and Speak Up & Report It

- how online content can be interpreted in different ways by different people
- everything online comes from a range of sources
- to create stronger passwords and know not to share them with friends
- who they can go to if they need help with something online.
- to make good decisions when choosing how and what to communicate
- how to recognise that seeking help for oneself or others is a sign of strength
- about apps' and services' community standards, or terms of service – as well as online tools for reporting abuse.

### Y4 Everyone Can Code: Commands and Functions

- a command is a specific action for the computer to perform
- a sequence is the order in which the commands are given
- an algorithm - a step-by-step set of rules or instructions
- a function is a collection of commands grouped together and given a name. The set of commands can then be run with just the name of the function.

**SPRING**



## YEARS 5 & 6

### **Y6 Be Internet Legends: Relationships & Being Kind, Refusing & Reporting and Handling & Reporting Mean Behaviour**

- the importance of protecting personal information
- how to respect online privacy boundaries for themselves and others
- ways to seek or ask for help if they or others feel unsafe online
- how mean behaviour online can lead to conflicts at school
- how to identify ways to avoid escalating conflicts online
- that seeking help for oneself or others is sign of strength
- be aware of online tools for reporting abuse
- to talk about why and when to report the abuse.

### **Y6 Everyone Can Code: While Loops and Arrays and Refactoring**

- while loops use conditional logic to test if something has happened. Programmers use them to loop a block of code until a condition is true. When the condition changes to false, the loop stops
- an array is a collection that stores an ordered list of items
- to refactor is to restructure code without changing the outward behaviour.

# CYCLE B

## YEARS 1 & 2

### Y2 Technology All Around Us

- that Information Technology (IT) can be explained as being a computer or something that has been made to work with computers. Examples could include: computers: scanners, barcode scanners, printers, smart speakers
- technology continues to develop rapidly, some devices may fit in multiple categories
- where technology can be found in school
- where technology can be found in everyday life beyond school and how it can be used.

### Y2 Everyone Can Create Photo Collages

- a collage is an art form that is made up of overlapping pieces of material, such as photographs, fabric, coloured and textured paper and other types of mixed media.
- a mask can hide parts of an image
- images can be layered to create overlapping compositions.

## YEARS 3 & 4

### Y4 Computer systems and networks - The Internet

- the internet as a network of networks
- the World Wide Web is not the same as the Internet, it is a service that runs on the Internet
- information is shared across the internet
- networks need protecting
- a network switch: A device that enables multiple devices on a network to be connected with each other
- a server: A computer that manages the network and stores files
- a router: A device that passes information between two computer networks.

### Y4 Everyone Can Create: Infographics

How to define an infographic

The different types of infographic, including:

Informational

Timeline

Process

Geographic

Comparison

how to represent data visually.

**SUMMER**



## YEARS 5 & 6

### **Y6 Computer systems and networks - Communication and networks**

- all data transferred over the internet is broken down into packets
- a protocol is an agreed method of communication
- data is split into small packets to be sent. Once they reach their destination, they go no further and are reassembled into their original form
- data packets consist of a header and data payload part
- the World Wide Web is not the internet, but it is a service that runs on the internet
- an Internet Protocol (IP) address is a unique identifier for a computer
- A Domain Name Server (DNS) is similar to a phone book of the internet - it translates human-readable domain names to machine readable IP addresses, so browsers can download the resources
- how we communicate using technology
- how to report inappropriate content.

### **Y6 Everyone Can Create: Year 6 Short Film**

- a screenplay is a type of script written in a particular format
- a shot list contains a list of the video to be captured
- a floor plan can aid film makers to plan to record the shot list and position the camera correctly
- video software can add sound effects and control the audio levels.

